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AUTHOR Rethemeyer, R. Karl
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ABSTRACT

This document provides information on two services established on the Internet by the National Center on Adult Literacy (NCAL): electronic mail (e-mail) communication with NCAL and a Gopher server that makes it possible to access and download information, documents, and software relevant to adult literacy. A recent "NCAL Connections" article, "Doing Adult Literacy on the Internet: Building a Community" (Christopher Hopey, Karl Rethemeyer), describes Internet, e-mail, library and database gateways, bulletin boards, software distribution, Gopher, and routes to accessing the Internet. The article, "Finding NCAL's Internet Gopher," provides information on logging onto the Gopher. The next section describes three types of Internet service providers--Freenets, commercial services, and regional Internet providers--and the different types of services each offers. Providers (companies and organizations that provide access to the Internet) are categorized by these types. This information is provided for each provider: name, community, contact person and address, phone, e-mail, access number, and Telnet access. A list of 20 recent books and articles about the Internet concludes the document. (YLB)

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ED 375 298

Adult Literacy, the Internet, and NCAL: An Introduction

Prepared by
R. Karl Rethemeyer
National Center on Adult Literacy
University of Pennsylvania

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

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Communicating with NCAL via the Internet

As part of NCAL's continuing effort to utilize telecommunications technology in research and dissemination activities, the Center has established two services on the international "network of networks," or Internet: e-mail communication with the Center and a Gopher server which makes it possible to access and download information, documents, and software relevant to adult literacy.

NCAL may now be contacted via Internet e-mail; the general address is Mailbox@literacy.upenn.edu. Enclosed in this packet is an informational brief, "E-Mailing to and from the Internet," which explains how commercial bulletin board users may contact the Center from their on-line services.

Gopher is a computer network protocol developed by the University of Minnesota to simplify distribution and retrieval of documents and software via the Internet. Using NCAL's Gopher server, you may learn more about the National Center on Adult Literacy and its many programs. You will also be able to retrieve fully formatted documents, including *NCAL Connections*, the Center's newsletter, complete policy briefs, occasional papers and technical reports, current research project abstracts, and listings of upcoming events relevant to the field of adult literacy. Current documents will be updated and new documents will be added frequently, so please log on regularly. See the brief, "Finding NCAL's Internet Gopher" in this packet for more information on logging onto NCAL's Gopher.

Despite the popularization of the Internet in the last year, there is still a great deal of confusion about how an individual or organization becomes part of the Internet community. To help alleviate some of that confusion, we have also included a recent *NCAL Connections* article on the Internet, a list of companies and organizations which provide access to the Internet, and a list of recent books and articles about the Internet.

Doing Adult Literacy on the Internet: Building a Community

(Reprinted from the Summer 1993 edition of *NCAL Connections*)

By Christopher Hopey and R. Karl Rethemeyer

For years one of the most common concerns in the field of adult literacy has been the lack of interaction between the research, policy, and practitioner communities. With the emergence of new computer networks, like the Internet, the opportunity to bridge this divide is at hand.

The Internet is the world's largest computer network, connecting millions of people to one another. The Internet is best described as an electronic city where thousands of people visit regularly to exchange mail, trade ideas, conduct business, or just chat. Its impact has been compared to the invention of movable type.[1]

The Internet

The Internet was originally developed out of the research efforts of the Department of Defense (DoD) and National Science Foundation (NSF). NSF, tasked with developing a network capable of allowing university researchers to share time on their five supercomputers, began developing the Internet in the early 1980s. To facilitate data sharing, NSF used DoD computer protocols which were designed to allow any computer, regardless of manufacturer, to communicate with the supercomputers. Once a common language was established, professors and students found a variety of other uses for the network, beginning with electronic mail. As new uses developed, more and more universities and corporations joined, first in the United States and later world-wide. At last count, more than five million computers in forty countries were connected to the Internet.

The Internet has grown to support dozens of information services, but five have become ubiquitous: e-mail, library and database gateways, bulletin boards, software distribution, and an emerging technology called "Gopher."

E-Mail

E-mail is the most popular service on the Internet because, unlike regular mail, delivery and reply are both prompt and reliable. Like a telephone answering machine, e-mail allows the user to store and retrieve messages any time of day. Unlike any other form of electronic communications, the content is textual, allowing large amounts of data to be transmitted.

Library and Database Gateways

One of the most popular uses of Internet is to log onto electronic card catalogs or research databases. Approximately 350 major universities, public libraries, and government agencies, including the Library of Congress, allow Internet users access to their electronic card catalogs and databases. Users can search the databases, retrieve text (and, in some cases, graphics), and save the results to their own computer.

Bulletin Boards

The Internet hosts the world's largest electronic bulletin board, known as USENET. Currently, USENET hosts more than 3,000 discussions on topics ranging from the sublime to the ridiculous to the highly unusual. Currently, there are no discussion groups specifically for adult literacy practitioners or policymakers. However, there are several groups on education in general and specifically on educational technology.

Software Distribution

Increasingly, the Internet has become a channel through which software is distributed. Using a program called FTP, users can log onto computers that serve as archives for DOS, Windows, Macintosh, or UNIX software, search the archive for a specific program or for a program which fills a specific need, and then have a copy of the program placed on their hard drive or diskette. Most software is free (freeware) or offered at low cost (shareware), and all programs may be "test driven" before final purchase.

Gopher

Most Internet services are not well-known or well-publicized; Gopher solves this problem. The University of Minnesota has developed software which integrates the "gateways" and FTP services into one program known as Gopher (after the Minnesota's Golden Gophers). Gopher is unique because it offers a directory of Gopher servers, collectively known as Gopherspace. In addition, Gopher allows users to search all of the servers in Gopherspace for information on a given topic or for a specific piece of software.

NCAL has recently joined Gopherspace by setting up its own server. NCAL distributes many of its documents via Gopher, including this issue and back issues of NCAL Connections. NCAL's research documents and papers as well as information on adult literacy conferences are also available. NCAL's Gopher can also point you to other Gopher resources relevant to adult literacy.

Accessing the Internet

"Great," you are thinking, "how do I try it?" Unfortunately, access to the Internet is still problematic because there are few publicly available access points. However, here are a few routes:

Colleges and Universities

Most universities, many community colleges, and some public libraries and corporations offer direct (i.e., 24 hour a day, non-modem) access to the Internet. If you have access to computer facilities at one of these organizations, ask the network or lab administrator if the facility is Internet-capable. If so, the administrator should also be able to configure your computer for Internet operations and provide you with the relevant software. Much of the software needed to access Internet resources is available free of charge.

Modem Access to Internet

For the modem-dependent, do not despair; a number of options are available. First, nine communities already provide free or low-cost Internet access, though many of these services do not offer the full range of Internet services. In addition, several telecommunications vendors are offering modem access to the Internet at prices comparable to those charged by the major commercial on-line services (see below).

Commercial On-line Services

Finally, commercial "on-line" networks such as America On-Line (800-827-6364), Compuserve (800-848-8199), Prodigy (800-776-0840), Delphi (800-695-4005), and GEnie (800-638-9636) are now in wide use and offer many services, including limited Internet access.

Connecting to a commercial on-line service is easy. Many local computer stores sell low-cost sign-up kits, and a few commercial services offer their sign-up kits for free. Installation and use is relatively trouble-free and straightforward.

In addition to Internet access, commercial on-line vendors offer services and information for both professional and personal use. Some services cater to education, while others are geared towards industry, personal productivity, or entertainment. A few offer services related to adult literacy.

Costs for commercial on-line services vary widely. Many charge a setup fee, others have a basic monthly rate, and some charge based on connection time. Basic monthly rates range from $4.95 to $20.00 a month. The hourly rates for use range from $5.00 to $15.00 per hour based on the time of day. Basic rates usually include 1-5 free hours of service. Many of the services offer a trial membership for free or at a reduced rate.

In conclusion, policymakers and researchers are now exploring new ways to connect the Internet community to the adult literacy community. The possibilities are just now being explored; Tech Views will continue to keep you abreast of the field's progress. See the Fall issue of NCAL Connections for more details on accessing and using the Internet.

Endnotes

[1]Broad, William J. "Doing Science on the Network: A Long Way From Gutenberg." The New York Times. May 18, 1993, C1.

E-mailing to and from the Internet

Because e-mail is such a popular feature of any on-line service, most major on-line providers allow their users to send and receive e-mail from users on the Internet. However, in order to send e-mail to an Internet user from a commercial service or vice versa, you must make changes to the recipient's e-mail addresses. Listed below are suggested changes.

E-mailing from commercial services to the Internet:

America On-line (AOL): Enter the Internet address without any changes.
Example: Internet address = doe@literacy.upenn.edu
AOL address: doe@literacy.upenn.edu

Applelink: Add the extension "@internet#" following the Internet address.
Example: Internet address = doe@literacy.upenn.edu
Applelink address: doe@literacy.upenn.edu@internet#

Compuserve: Enter ">INTERNET:" followed by a space and the Internet address.
Example: Internet address = doe@literacy.upenn.edu
Compuserve address: >INTERNET: doe@literacy.upenn.edu
Note: INTERNET must be in capital letters

Delphi Internet Services: Enter the Internet address without any changes.
Example: Internet address = doe@literacy.upenn.edu
Delphi address: doe@literacy.upenn.edu

GEnie: Add the extension "@inet#" to the Internet address.
Example: Internet = doe@literacy.upenn.edu
GEnie address: doe@literacy.upenn.edu@inet#

Prodigy: Enter the Internet address without any changes.
Example: Internet = doe@literacy.upenn.edu
Prodigy address: doe@literacy.upenn.edu
NOTE: REQUIRES THE PRODIGY MAIL MANAGER SOFTWARE.

E-mailing from the Internet to commercial services:

America On-line (AOL): Add "@aol.com" to the America On-line address.
Examples: AOL address = John Doe
Internet: John Doe@aol.com

AOL address = Johndoe
Internet: Johndoe@aol.com

AppleLink: Add "@applelink.apple.com" to the AppleLink address.
Example: AppleLink address = D9876
Internet: D9876@applelink.apple.com

Delphi Internet Services: Enter the Delphi address without any changes.
Example: Delphi address = Doe@delphi.com
Internet: Doe@delphi.com

Compuserve: Replace the comma in the Compuserve address with a period and add "compuserve.com."
Example: Compuserve address = 98765,321
Internet: 98765.321@compuserve.com

GEnie: Add "@genie.geis.com" to the GEnie address.
Example: GEnie address = Johndoe
Internet: johndoe@genie.geis.com

Prodigy: Add "@prodigy.com" to the Prodigy address.
Example: Prodigy address = DKGS71A
Internet: DKGS71A@prodigy.com
NOTE: THE PRODIGY MEMBER MUST HAVE PRODIGY'S MAIL MANAGER SOFTWARE IN ORDER TO RECEIVE INTERNET MESSAGES.

Finding NCAL's Internet Gopher

Gopher is a computer network protocol developed by the University of Minnesota to simplify distribution and retrieval of documents and software via the international "network of networks," or Internet. NCAL recently established a Gopher server in order to distribute information about the National Center on Adult Literacy and its programs. From this server you will be able to retrieve fully formatted documents, including *NCAL Connections* (the Center's newsletter), complete policy briefs, occasional papers and technical reports, current research project abstracts, and listings of upcoming events relevant to the field of adult literacy.

There are several different ways to access Gopher. Below you will find a list of different access points and methods. We recommend contacting your network or computer laboratory administrator before attempting to install Gopher on your computer.

1. **If you already have Gopher installed on your hard drive or know how to use a telnetable Gopher client:**

   NCAL's server may be found on the "Home Gopher Server" in the folder/directory "Other Gopher and Information Servers/All Gopher Servers in the World" under the name "National Center on Adult Literacy." Or you may point your Gopher client at "litserver.literacy.upenn.edu."

2. **If your computer is already configured to use Internet communications software (i.e., telnet, ftp, netnews, etc.):**

   Gopher clients (i.e., software used to communicate with computers using Gopher) may be obtained free of charge via FTP (file transfer protocol) from the University of Minnesota. FTP to "boombox.micro.umn.edu"; the Gopher clients are stored in the "pub/gopher" folder/directory. Currently, clients are available for the following operating systems: Macintosh (TurboGopher is the best Mac version), Windows, DOS (several versions of varying quality), OS/2, NeXT, Unix, and VMS. Installation instructions are included with the client software; make sure to download any "readme" files as well.

   Once you have installed and started up your Gopher client, NCAL's server may be found on the "Home Gopher Server" in the folder/directory "Other Gopher and Information Servers/All Gopher Servers in the World" under the name "National Center on Adult Literacy."

   IMPORTANT: to work properly, your computer or LAN must be connected directly to the Internet or have access to a Serial Line Internet Protocol (SLIP) or Point-to-Point Protocol (PPP) modem service. Additionally, you must have the proper packet drivers (software which facilitates communication via the Internet). If you are not sure your computer is properly configured for Internet communications, consult your network or computer lab administrator before attempting to install or use Gopher.

3. If you know how to start a telnet session, either from a machine directly connected to the Internet or by using a modem:

There are several telnetable Gopher clients (i.e., clients which may be accessed using a terminal emulation program; some terminal emulators are designed for computers that are directly connected to the Internet, others may be used with a modem):

Hostname	IP#	Login	Area
consultant.micro.umn.edu	34.84.132.4	gopher	North America
gopher.uiuc.edu	128.174.33.160	gopher	North America
panda.uiowa.edu	128.255.40.201	panda	North America
gopher.sunet.se	192.36.125.2	gopher	Europe
info.anu.edu.au	150.203.84.20	info	Australia
gopher.chalmers.se	129.16.221.40	gopher	Sweden
tolten.puc.cl	146.155.1.16	gopher	South America
ecnet.ec	157.100.45.2	gopher	Ecuador
gan.ncc.go.jp	160.190.10.1	gopher	Japan

Telnet clients do not allow you to download fully formatted documents. However, the telnet client can send any plain text document to your e-mail account. If you choose to e-mail yourself any of NCAL's longer documents, be sure to choose the text version.

NCAL's server may be found on the "Home Gopher Server" in the folder/directory "Other Gopher and Information Servers/All Gopher Servers in the World" under the name "National Center on Adult Literacy."

IMPORTANT: you may have access to telnet and not realize it. Many e-mail accounts are accessed using telnet. If, to access your e-mail account, you must enter a long, period-separated hostname like those listed above, you may have access to telnet. Check with your network administrator for more details. Currently, none of the major commercial bulletin board services offer telnet services, however.

4. If you are not using any of these services currently:

If you have a local area network or computer laboratory in your place of work, public library, or literacy program, check with the network or laboratory administrator to see if you can gain access to the Internet from their facility. You may have Internet services but not realize that you do.

Even if you have no affiliations with Internet-capable institutions, you may still be able to access the Internet. Any personal computer equipped with a modem (a device which allows computers to exchange information with one another via plain phone lines) can communicate with the Internet. In order to do so, you will need to subscribe to either a commercial on-line service or a community Internet access point (often called a Freenet). As of this writing, the two largest providers of commercial access to Gopher services are Delphi Internet Services and America On-line. See the NCAL document "Modem Access Points to the Internet" for more information.

5. If all else fails:

Contact Karl Rethemeyer
E-mail: Rethemeyer@literacy.upenn.edu
Fax (215) 898-9804
Surface mail: National Center on Adult Literacy
3910 Chestnut Street
Philadelphia, PA 19104-3111

No phone inquiries, please.

Freenet and Commercial Access Points to the Internet

Introduction

Despite the growing popularity of the Internet as a telecommunication tool, finding a service provider that offers individuals or organizations access to the Internet is still not easy. Using the Internet, we have compiled the following list of access providers.

To utilize any of these services you will need to have, at minimum, the following equipment: a personal computer and a modem (a device that allows computers to exchange data with one another via plain phone lines). Modems come in different speeds; modem speed is usually expressed either in bits per second (bps) or baud rate (both of which measure the amount of data a modem can transfer in one second). Baud rate and bits per second are (roughly) synonymous. Most people use 2400 bps modems; however, 9600 and 14,400 bps modems are becoming cheaper and are preferable for accessing the Internet.

You may also need terminal emulation software (software that controls the modem and coordinates communication between your computer and the computer on the other end of the phone line). The most popular terminal emulation programs are ProComm for DOS and Windows-based computers and Microphone II for Macintosh computers. Some commercial services provide terminal emulation software with their service, so consult your service provider before purchasing a package.

There are three types of Internet service providers: Freenets, commercial services, and regional Internet providers. Each offers different types of services:

Freenet Providers:

As the name implies, Freenets are free (or very low cost) community access points to the Internet. Each Freenet site provides Internet e-mail accounts for their registered users and a variety of community-oriented on-line services—everything from bulletin boards to library card catalogs. Additionally, some sites offer access to Internet data and navigation tools such as Gopher, WAIS, and Telnet. Though these sites are focused on one community, anyone may join, regardless of location. For those living outside a Freenet's "home" community, the drawback to these services is that one must pay long distance charges to gain access to the system.

Commercial Dial Up Access to the Internet:

There are two types of commercial services: Dial-up e-mail and dial-up IP. Services that offer dial-up e-mail, as the name suggests, provide only e-mail access to the Internet. While one may access a growing number of databases via e-mail requests, e-mail only accounts do not offer access to the most powerful Internet tools like Gopher, Telnet, or WAIS. However, you may access dial-up e-mail accounts using a simple telecommunications program. Dial-up IP accounts offer full access to all the Internet's tools and data sources. You will need to acquire special modem software to use dial-up IP. Check with your service provider for more details. Both "e-mail only" and IP providers usually have local access numbers for their services in metropolitan areas of 50,000 to 100,000 inhabitants.

Many commercial providers offer other services in addition to Internet access—anything from on-line stock quotes to airline ticket reservation services. The list below only highlights the type of Internet access a provider offers.

Regional Internet Providers:

The regional Internet providers are primarily responsible for connecting institutional local area networks (LANs) to the Internet. If you wish to connect your LAN to the Internet, you will need to contact one of the providers listed below. Regional providers can help you determine what level of service and what type of equipment you will need to buy. However, the regional providers can also steer individuals toward dial-up service providers. In fact, some offer dial-up access directly (those which do are listed in the commercial dial-up list). If you have trouble determining what type of service you need and where to get it, the regional provider for your area is your best resource.

This list is current as of the date listed at the bottom of this page. If you know of or discover a service that should be listed here, please contact Karl Rethemeyer at NCAL (E-mail: rethemeyer@literacy.upenn.edu; phone: (215) 898-2100). Currently, the InterNIC, an organization created by the National Science Foundation to help groups and individuals get connected to and use the Internet, is compiling a comprehensive list of service providers; NCAL will update this list as the InterNIC's information becomes available. The InterNIC also provides information about the Internet and the various ways to join the Internet community. For more information about the InterNIC and its services, call 800-444-4345 between 6 AM and 6 PM Pacific Time.

The National Center on Adult Literacy and the University of Pennsylvania neither supports nor endorses the organizations listed below.

Freenet Providers:

Note: "Demo" sites may not be available to the public yet or may not offer some of the services mentioned above. Contact the service provider for information on service availability.

BIG SKY TELEGRAPH
Community: Dillon, Montana
Contact Person: Frank Odasz
Western Montana College of
the University of Montana
Dillon, MT 59725
Phone: (406)683-7338
E-mail: franko@bigsky.dillon.mt.us
Access number: (406) 683-7680
(1200 baud)
Telnet Access: 192.231.192.1 (not receiving guest telnet connections currently)

BUFFALO FREE-NET
Community: Buffalo, New York
(Demo System)
Contact Person: James Finamore
Town of Tonawanda
1835 Sheridan Drive
Buffalo, NY 14223
Phone: (716) 877-8800 ext. 451
E-mail: finamore@ubvms.cc.buffalo.edu
Access Number: (716) 645-6128
Telnet Access: freenet.buffalo.edu

CAPACCESS: THE NATIONAL CAPITAL AREA PUBLIC ACCESS NETWORK
Community: Washington, DC
Address: The George Washington University
2002 G. Street,Suite B-1, NW
Washington, DC 20052
Phone: (202) 994-4245
Fax: (202) 994-2317
E-mail: info@cap.gwu.edu
Access number: (202) 785-1523
300/1200/2400/9600/14400 Baud
Telnet Access: cap.gwu.edu

THE CLEVELAND FREE-NET
Community: Cleveland, Ohio
Contact Person: Jeff Gumpf
CWRU Information Network Services
Cleveland, Ohio 44106
Phone: (216) 368-2982
E-mail: jag@po.cwru.edu
Access Number: (216) 368-3888 -
300/1200/2400 Baud
Telnet Access: freenet-in-a.cwru.edu

COLUMBIA ONLINE INFORMATION NETWORK (COIN)
Community: Columbia, MO
Address: COIN
Daniel Boone Regional Library
P.O. Box 1267
100 West Broadway
Columbia, Mo 65205-1267
Phone: (314) 443-3161
E-mail: ccwam@mizzoui.missouri.edu
Access Number: (314)-884-7000
300/1200/2400 Baud
Telnet Access: bigcat.missouri.edu

DENVER FREE-NET
Community: Denver, Colorado
Contact Person: Drew Mirque
4200 East Ninth Ave.
Campus Box C-288
Denver, CO 80210
Phone: (303) 270-4300
E-mail: drew@freenet.hsc.colorado.edu
Access Number: (303) 270-4865
Telnet Access: freenet.hsc.colorado.edu.
Login: guest.

THE HEARTLAND FREE-NET
Community: Peoria, Illinois
Contact Person: Karen Eggert
Lovelace Technology Center
Peoria, Illinois 61625
Phone: (309) 677-2544
E-mail: xxadm@heartland.bradley.edu
Access Number: (309) 674-1100
Telnet Access: heartland.bradley.edu

ITHACA FREENET
Community: Ithaca, NY
Contact Person: Jean Currie
215 North Cayuga Street
Ithaca, NY 14850
Phone (607) 273-9106
E-mail scrlc@scrlc.org
Organizing committee to establish Ithaca Freenet. Service not yet available.

LORAIN COUNTY FREE-NET
Community: Elyria, Ohio
Contact Person: Thom Gould
32320 Stony Brook Drive
Avon Lake, Ohio 44012
Phone: 1-800-227-7113 Ext. 2451
or 216-277-2451
E-mail: aa003@freenet.lorain.oberlin.edu
Access Number: (216) 366-9721
300/1200/2400 Baud
Telnet Access: freenet.lorain.oberlin.edu.
Login: guest.

MEDINA COUNTY FREE-NET
Community: Medina, Ohio
Contact Person: Gary Linden
Medina Gen. Hosp Project Director
Medina General Hospital
1000 E. Washington Street
P.O. Box 427
Medina, Ohio 44258-0427
Phone: (216) 725-1000 Ext. 2550
E-mail: aa001@medina.freenet.edu
Access Number: (216) 723-6732
300/1200/2400 Baud
Telnet Access: (not receiving guest telnet connections currently)

NATIONAL CAPITAL FREE-NET
Community: Ottawa, Canada
Contact Person: David Sutherland
Computing Services
Carleton University
Ottawa CANADA K1S 5B6
Phone: (613) 788-2600 ext. 3701
E-mail: aa001@freenet.carleton.ca
Access Number: (613) 780-3733
Telnet Access: freenet.carleton.ca

RIO GRANDE FREENET
Community: El Paso, TX; Juarez, Mexico, and the Upper Rio Grande
Contact: Don Furth
P.O. Box 20500
El Paso Community College
El Paso, TX 79998
Phone: (915) 594-2190
E-mail: aa100@rgfn.epcc.edu
Access Number (915) 775-5600
300/1200/2400/9600 baud
Telnet Access: rgfn.epcc.edu

SENDIT
Community: North Dakota educators
Phone: (701) 237-8109
E-mail: sackman@sendit.nodak.edu
Telnet Access: sendit.nodak.edu

TALAWANDA LEARNING COMMUNITY NETWORK
Community: Oxford, OH
Contact Person: Robert Pickering
331 West Church Street
Oxford, OH 45056
E-mail: rap@tlcnet.muohio.edu
Access Numbers:
(513) 529-6114 (2400 baud)
(513) 529-4999 (9600 baud)
Telnet Access: tlcnet.muohio.edu

TALLAHASSEE FREE-NET
Community: Tallahassee, Florida (Demo System)
Contact Person: Hilbert Levitz
Dept. of Computer Science
Florida State University
Tallahassee, FL 32306
Phone: (904) 644-1796
E-mail: levitz@cs.fsu.edu
Access Number: (demo system, Internet access only)
Telnet Access: freenet.fsu.edu (not receiving guest telnet connections currently)

TRAVERSE CITY FREE-NET
Community: Traverse City, MI
Contact Person: Connie Minster
Northwestern Michigan College
Information Technology Department
Traverse City Free-Net
1701 East Front Street
Traverse City, MI 49684
E-mail: connie@nmc.edu
Telnet Access: leo.nmc.edu

TRISTATE ONLINE
Community: Cincinnati, Ohio
Contact Person: Michael King
TSO System Administrator
Cincinnati Bell Directory. Inc.
Room 102-2000
201 East 4th Street
Cincinnati, Ohio 45201-2301
Phone: (513) 397-1396
E-mail: sysadmin@cbos.uc.edu
Access Number: 513-579-1990
Telnet Access: cbos.uc.edu. Select option CBOS

VICTORIA FREE-NET
Community: Victoria, British Columbia
Contact Person: Gareth Shearman
Victoria Free-Net Association
C/O Vancouver Island Advanced
Technology Centre (VIATC)
Suite 203-1110 Government Street
Victoria, British Columbia V8W 1Y2
CANADA
Phone: (604) 385-4302
E-mail: shearman@cue.bc.ca
Access Number: (604) 595-2300
Telnet Access: freenet.victoria.bc.ca

VIRGINIA PUBLIC EDUCATION NETWORK
Community: Educators in Virginia
Address: Virginia Department of Education
James Monroe Building
22nd floor
101 North 14th Street
Richmond, VA 23216
Telnet Access: vdoe386.vak12ed.edu

THE YOUNGSTOWN FREE-NET
Community: Youngstown, Ohio
Contact Person: Lou Anschuetz
YSU Computer Center
Youngstown, Ohio 44555
Phone: (216) 742-3075
E-mail: lou@yfn.ysu.edu
Access Number: (216) 742-3072 -
300/1200/2400 Baud
Telnet Access: yfn.ysu.edu (not receiving
telnet connections currently)

Other Dial-up Services Free to Practitioners with K12 Affiliations:

K12Net
3501 County Road
Stanley, NY 14561
Contact: Jack Crawford
Phone: (716) 526-6431

TeachNet
New York Institute of Technology
Central Islip Campus
Building 66, Room 205
Central Islip, NY 11722
Contact: Barbara Zayes
Phone: (516) 348-3317; (800) 462-9041

Commercial Dial Up Access to the Internet:

a2i Communications
E-mail: info@rahul.net
Area Served: San Jose, CA
(408 area code)
Services: Dialup e-mail

America On-line, Inc.
Phone: (800) 827-6364
E-mail: info@aol.com
Area Served: US and Canada
Services: Dialup e-mail.

Anterior Technology
Phone: (415) 328-5615
E-mail: info@radiomail.net
Area Served: San Francisco bay area
Services: Dialup e-mail

The Black Box
Phone: (713) 480-2684
E-mail: mknewman@blkbox.com
Area Served: Area code 713 (Houston, TX)
Services: Dialup E-mail

BIX
Phone: (800) 695-4775
(617) 354-4137
E-mail: TJL@mhis.bix.com
Area Served: Area code 617; local dialup connections outside 617 available through TYMNET.
Services: Dialup e-mail.

CERFnet
Phone: (800) 876-2373
(619) 455-3900
E-mail: help@cerf.net
Services: Network connections, national dialup IP, dialup e-mail.

Capcon Connect
Phone: (202) 466-7057
E-mail: jhagerman@capcon.net
Area Served: Area code 202.
Services: Dialup e-mail, Dialup IP

Channel 1
Phone: (617) 864-0100
E-mail: whitehrn@channel1.com
Area Served: Massachusetts
Services: Dialup e-mail.

CLASS
Cooperative Agency for Library Systems and Services
Phone: (800) 488-4559
E-mail: class@class.org
Area Served: US
Services: Dialup access for libraries in the US.

Community News Service
Phone: (719) 579-9120
E-mail: klaus@cscns.com
Area Served: Colorado Springs, CO (719 area code)
Services: Dialup e-mail.

CompuServe Information System
Phone: (800) 848-8990
(614) 457-0802
E-mail: postmaster@csi.compuserve.com
Services: Dialup e-mail.

The Cyberspace Station
Phone: (619) 944-9498 ext. 626
E-mail: help@cyber.net
Area Served: San Diego, CA
Services: Dialup e-mail

DASNET
Phone: (408) 559-8649
E-mail: postmaster@das.net
Area Served: California
Services: Dialup E-mail

Delphi Internet Services, Inc.
Massachusetts Avenue
Cambridge, MA 02138
Contact: Rusty Williams
Phone: (800) 544-4005
Area Served: US
Services: Dial-up e-mail, dial-up IP

Express Access Online Communications Service
Phone: (301) 220-2020
E-mail: info@digex.com
Services: Dialup e-mail in the Northern VA, Baltimore MD, Washington DC areas (area codes 202, 310, 410, 703).

EZ-E-Mail
Phone: (603) 672-0736
E-mail: info@lemuria.sai.com
Area Served: US and Canada
Services: Dialup e-mail.

Halcyon
Phone: (206) 426-9298
E-mail: info@remote.halcyon.com
Area Served: Seattle, WA
Services: Dialup e-mail.

HoloNet
Phone: (510) 704-0160
E-mail: info@holonet.net
Area Served: Berkeley, CA (area code 510)
Services: Dialup e-mail.

Institute for Global Communications (IGC)
Phone: (415) 442-0220
E-mail: support@igc.apc.org
Services: Dialup e-mail; affiliated with PeaceNet, EcoNet, and ConflictNet; member of the Association for Progressive Communications (APC).

IDS World Network
Phone: (401) 884-7856
E-mail: sysadmin@ids.net
Area Served: East Greenwich, RI; northern RI
Services: Dialup e-mail, dialup IP

JvNCnet
Contacts: Sergio F. Heker
Allison Pihl
Phone: (800) 358-4437
(609) 258-2400
E-mail: market@jvnc.net
Services: Network connections, national dialup IP, dialup e-mail.

MCI Mail Engineering
Phone: (800) 444-6245
(202) 833-8484
E-mail: 2671163@mcimail.com
3248333@mcimail.com
Area Served: nation
Services: Dialup e-mail.

MichNet
Contact: Jeff Ogden
Phone: (313) 764-9430
E-mail: jogden@merit.edu
Area Served: Michigan
Services: Dialup IP

Milwaukee Internet X
Phone: (414) 962-8172
E-mail: sysop@mixcom.com
Area Served: Milwaukee area
Services: dialup e-mail

MindVox
Phone: (212) 988-5987
E-mail: info@phantom.com
Area Served: New York City (area codes 212, 718)
Services: Dialup e-mail.

MSEN, Inc.
Contact: Owen Scott Medd
Phone: (313) 998-4562
E-mail: info@msen.com
Area Served: U.S.
Services: Network connections, dialup IP, dialup e-mail.

New Mexico Technet
Phone: (505) 345-6555
E-mail: reynolds@technet.nm.org
Area Served: New Mexico
Services: Dialup e-mail.

Net Access
Contact: Avi Freedman
Phone: (215) 960-0972
Access Number: (215) 836-4832 (offers free demo account)
Area Served: SE Pennsylvania, Southern New Jersey, Delaware
Services: Dialup e-mail; dialup Gopher, Telnet, etc.

Netcom Online Communications Services
Phone: (408) 554-8649
E-mail: info@netcom.com
Area served: San Jose-San Francisco, CA
Services: Dialup e-mail, dialup IP

Old Colorado City Communications
Phone: (719) 632-4848
E-mail: dave@oldcolo.com
Area Served: Colorado
Services: Dialup e-mail.

Panix Public Access Unix
Contact: Alexis Rosen
Phone: (212) 877-4854
E-mail: alexis@panix.com
or
Contact: Jim Baumbach
Phone: (718) 965-3768
E-mail: jsb@panix.com
Area Served: New York City, NY (area codes 212, 718)
Services: Dialup e-mail.

Performance Systems International, Inc. (PSI)
Phone: (800) 827-7482
(703) 620-6651
E-mail: info@psi.com
Services: Network connections, dialup IP, dialup e-mail.

Portal Communications, Inc.
Phone: (408) 973-9111
E-mail: cs@cup.portal.com
info@portal.com
Area Served: Northern California (area codes 408, 415)
Services: Dialup e-mail.

RISCnet
Contact: Andy Green
Phone: (401) 885-6855
E-mail: info@nic.risc.net
Area served: Rhode Island
Services: Dialup IP

Seattle Online
Phone: (206) 328-2412
E-mail: bruceki@online.com
Area Served: Seattle, WA
Services: Dialup e-mail.

Sugar Land Unix
Phone: (713) 438-4964
E-mail: info@NeoSoft.com
Area Served: Texas (Houston metro area)
Services: Dialup e-mail.

UUNET Technologies, Inc.
Phone: (800) 488-6384
(703) 204-8000
E-mail: info@uunet.uu.net
Services: Network connections, dialup e-mail; Alternet is a product of UUNET Technologies.

Village of Cambridge
Phone: (617) 494-5226 (voice)
(617) 252-0009 (modem)
E-mail: service@village.com
Area Served: Massachusetts
Services: Dialup e-mail

Whole Earth 'Lectronic Link (WELL)
Phone: (415) 332-4335
E-mail: info@well.sf.ca.us
Area Served: San Francisco Bay Area (area code 415)
Services: Dialup e-mail.

The WORLD
Software Tool & Die
1330 Beacon Street
Brookline, MA 02146
Phone: (617) 739-0202
Fax: (617) 739-0914
E-mail: office@world.std.com
Access Number: (617) 739-9753
Area Served: US
Services: Dialup e-mail, dial-up IP

Regional Internet Providers:

Advanced Network and Services Inc. (ANS)
Phone: (800) 456-8267
(313) 663-2482
E-mail: info@ans.net
Region: nationwide

BARRNET
Pine Hall Room 115
Stanford, CA 94305-4122
Contact: William Yundt
Phone: (415) 723-3104
E-mail: GD.why@forsythe.stanford.edu
Region: San Francisco area

BBN Systems and Technologies
10 Moultin Street
Cambridge, MA 02138
Phone: (617) 873-8730
E-mail: nearnet-join@nic.near.net
Region: Maine, New Hampshire, Vermont, Connecticut, Rhode Island, Massachusetts

CERFnet
PO Box 85608
San Diego, CA 92186-9784
Phone: (800) 876-2373
E-mail: help@cerf.net
Region: Southern California

CICnet
ITI Building
2901 Hubbard Drive, Pod G
Ann Arbor, MI 48105
Phone: (313) 998-6103
E-mail: infor@cic.net
Region: Illinois, Iowa, Minnesota, Wisconsin, Michigan, Ohio, Indiana

Colorado Supernet
CSM Computer Center
Colorado School of Mines
1500 Illinois Street
Golden, CO 80401
Phone: (303) 273-3471
E-mail: info@csn.org
Region: Colorado

CONCERT
PO Box 12889
3021 Cornwallis Road
Research Triangle Park, NC 27709
Phone: (919) 248-1404
E-mail: jrr@concert.net
Region: North Carolina

Infolan
Contact: George Abe
Phone: (310) 335-2600
E-mail: abe@infonet.com
Region: nationwide

INet
Contact: Dick Ellis
Phone: (812) 855-4240
E-mail: ellis@ucs.indiana.edu
Region: Indiana

JVNCNet
6 von Neumann Hall
Princeton University
Princeton, NJ 08544
Contact: Sergio Heker
Phone: (609) 258-2400
E-mail: market@jvnc.net
Region: Northeastern US

Los Nettos
Information Sciences Institute
4676 Admiralty Way
Marina Del Rey, CA 90292
Phone: (301) 822-1511
E-mail: los-nettos-request@isi.edu
Region: Los Angeles area

Merit
2200 Bonisteel Boulevard
Ann Arbor, MI 48109-2112
Phone: (313) 764-9430
E-mail: jogden@merit.edu
Region: Michigan

MichNet
Contact: Jeff Ogden
Phone: (313) 764-9430
E-mail: jogden@merit.edu
Region: Michigan

MIDnet
29 WESC
University of Nebraska
Lincoln, NE 68588
Phone: (402) 472-5032
E-mail: dmf@westie.unl.edu
Region: Nebraska, Oklahoma, Arkansas, South Dakota, Iowa, Kansas, Missouri

MRnet
511 11th Avenue South, Box 212
Minneapolis, MN 55415
Phone: (612) 342-2570
E-mail: info@mr.net
Region: Minnesota

MSEN
628 Brooks Street
Ann Arbor, MI 48103
Phone: (313) 998-4562
E-mail: info@msen.com
Region: nationwide (Michigan primarily)

NSFNET
Referrals from:
InterNIC Information Services
Phone: (800) 444-4345
(619) 455-4600
E-mail: info@internic.net
Region: nationwide

NEARnet
Netcom Online Communications Services
4000 Moorepark Avenue, #209
San Jose, CA 95117
Phone: (408) 554-8649
E-mail: ruthann@netcom.com
Region: California

netIllinois
Bradley University
1501 W. Bradley Avenue
Peoria, IL 61625
Contact: Joel Hartman
Phone: (309) 677-3100
E-mail: joel@bradley.edu
Region: Illinois

NevadaNet
University of Nevada System
Computer Services
4505 Maryland Parkway
Las Vegas, NV 89154
Phone: (702) 739-3557
Region: Nevada

NorthWestNet
2435 233rd Place, NE
Redmond, WA 98053
Phone: (206) 562-3000
E-mail: ehood@nwnet.net
Region: Oregon, Washington, Wyoming, Alaska, Idaho, Montana, North Dakota

NYSERNet
200 Elwood Davis Road
Suite 103
Liverpool, NY 13088-6147
Phone: (315) 453-2912
E-mail: info@nysernet.org
Region: New York

OARnet
Ohio Supercomputer Center
1224 Kinnear Road
Columbus, OH 43085
Phone: (614) 292-9248
E-mail: alison@osc.edu
Region: Ohio

PACCOM
Contact: Torben Nielsen
Phone: (808) 956-3499
E-mail: torben@hawaii.edu
Region: Hawaii

PREPnet
305 S. Craig Street, 2nd Floor
Pittsburgh, PA 15123
Phone: (412) 268-7870
E-mail: twb+@andrew.cmu.edu
Region: Pennsylvania

PSCNet
Pittsburgh Supercomputing Center
305 S. Craig Street, 2nd Floor
Pittsburgh, PA 15123
Phone: (412) 268-4960
E-mail: hastings@psc.edu
Region: Eastern US

Performance Systems International, Inc (PSI)
Phone: (800) 827 7482
(703) 620 6651
E-mail: info@psi.com
Region: nationwide

RISCnet
Contact: Andy Green
Phone: (401) 885-6855
E-mail: info@nic.risc.net
Region: Rhode Island

SDSCnet
Contact: Paul Love
Phone: (619) 534 5043
E-mail: loveep@Ssds.sdsc.edu
Region: California

Sesquinet
Office of Networking and Computing
Rice University
Houston, TX 77251-1892
Phone: (713) 527-4988
E-mail: farrell@rice.edu
Region: Texas

SprintLink
Contact: Bob Doyle
Phone: (703) 904-2167
E-mail: bdoyle@icm1.icp.net
Region: nationwide

SURAnet
1353 Computer Science Center
8400 Baltimore Boulevard
College Park, MD 20740-2498
Phone: (301) 982-4600
E-mail: info@sura.net
Region: Southeastern US & Puerto Rico

THEnet
Texas Higher Education Network
Information Center
Austin, TX 78712
Phone: (512) 471-2444
E-mail: info@nic.the.net
Region: Texas

VERnet
Academic Computing Center
Gilmer Hall
University of Virginia
Charlottesville, VA 22903
Phone: (804) 924-0616
E-mail: jaj@virginia.edu
Region: Virginia

WESTnet
601 S. Howes Street, 6th Floor South
Colorado State University
Fort Collins, CO 80523
Phone: (303) 491-7260
E-mail: pburns@yuma.acns.colostate.edu
Region: Arizona, Colorado, Idaho, New Mexico, Utah, Wyoming

World dot Net
Internetworks, Inc.
Phone: (206) 576-7147
E-mail: info@world.net
region: Idaho, Oregon, Washington

WiscNet
1210 W. Dayton Street
Madison, WI 53706
Phone: (608) 262-8874
E-mail: dorl@macc.wisc.edu
Region: Wisconsin

WVnet
837 Chestnut Ridge Road
Morgantown, WV 26505
Contact: Harper Grimm
Phone: (304) 293-5192
E-mail: cc011041@wvnvm.wvnet.edu
Region: West Virginia

Electronic Networking References

Aboba, Bernard. *The Online User's Encyclopedia.* Addison-Wesley Trade Computer Books: New York 1993.

Benedikt, Michael, ed. *Cyberspace: First Steps.* MIT Press: Cambridge, MA 1991.

Braun, Eric. *The Internet Directory.* Fawcett Columbine: New York 1994.

Clinton, William J, and Gore, Albert Jr. *Technology For America's Economic Growth, A New Direction to Build Economic Strength.* US Government Printing Office (Document Number: 1993-347-397/80142): Washington, DC 1993.

Dern, Daniel P. *The New User's Guide to the Internet.* McGraw-Hill: New York 1993.

Fraase, Michael. *The Mac Internet Tour Guide.* Ventana Press: Chapel Hill, NC 1993.

Frey, Donnalyn and Rick Adams. *!%@::A Directory of Electronic Mail Addressing and Networks.* O'Reilly and Associates: Sebastopol, CA 1993.

Gore, Al. "Infrastructure for the Global Village," *Scientific American,* volume 265, number 3, pp. 150-53. Scientific American: New York September 1991.

Hiltz, Roxanne. *Online Communities: A Case Study of the Office of the Future.* Ablex Press: Norwood, New Jersey 1984.

Kahin, Brian, ed. *Building Information Infrastructure: Issues in the Development of the National Research and Education Network.* McGraw-Hill Primis: New York 1992.

Kehoe, Brendan P. *Zen and the Art of the Internet: A Beginner's Guide to the Internet* (second edition). Practice Hall: Englewood Cliffs, NJ 1993. Available via FTP from ftp.upenn.edu in the directory "pub/dccs."

Krol, Ed. *The Whole Internet.* O'Reilly & Associates, Inc.: Sebastopol, CA 1992.

Lane, Elizabeth S. and Craig A. Summerhill. *An Internet Primer for Information Professionals: A Basic Guide to Networking Technology.* Meckler Corp.: Westport, CT 1992.

LaQuey, Tracy. *The Internet Companion: A Beginner's Guide to Global Networking.* Addison-Wesley: Reading, MA 1993.

Marine, April, ed. *Internet: Getting Started.* SRI International: Menlo Park, CA 1992.

McClure, Charles, Ann Bishop, Philip Doty, and Howard Rosenbaum. *The National Research and Education Network (NREN): Research and Policy Perspectives.* Ablex Press: Norwood, NJ 1991.

O'Reilly and Associates. *Connecting to the Internet.* O'Reilly and Associates, Inc.: Sebastopol, CA 1993.

Parkhurst, Carol A., ed. *Library Perspectives on NREN: The National Research and Education Network.* LITA: Chicago 1990.

Quarterman, John S. *The Matrix: Computer Networks and Conferencing Systems Worldwide*. Digital Press: Bedford, MA 1990.

Tennant, John et. al. *Crossing the Internet Threshold: An Instructional Handbook*. Library Solutions Press 1993.